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10/722,648

11/25/2003

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EXAMINER

LOBO, IAN J

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/722,648
Filing Date: November 25, 2003
Appellant(s): REES, FRANK L.

Peter K. Trzyna
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed February 1, 2008 appealing from the Office action mailed February 27, 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

This appeal involves claim 1.

Claims 61, 64 and 65 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

There is no rejection pursuant to 35 USC 132, as asserted by appellant.

(7) Claims Appendix

A substantially correct copy of appealed claim 1 appears on page 20 of the Appendix to the appellant's brief. The minor errors are as follows:

The appendix does not contain a copy of claim 61 which has been indicated as allowable, along with claims 64 and 65. A claim appendix page is attached that contains a copy of the sole appealed claim 1.

(8) Evidence Relied Upon

6,418,081	SEN et al	7-2002
6,034,760	REES	3-2000

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sen et al ('081) when taken in view of the Rees patent ('760).

Per claim 1, the patent to Sen et al discloses a method of identifying an object using nonlinear acoustics. The method includes directing a primary acoustic waveform at the object to produce a nonlinear acoustic effect, receiving a secondary wavelet (backscattered signals) produced by the nonlinear effect and processing the received secondary wavelet in identifying the object.

The difference between claim 1 and the Sen et al system is the instant claim specifies producing the nonlinear acoustic effect by "using multiple projectors driven by a synthetic spectrum".

The patent to Rees (see col. 15, line 58 – col. 16, line 4) teaches increased acoustic enhancement by transmitting a synthetic spectrum waveform using a multiple

set of phase locked, pulsed acoustic carrier waveforms each emitted from individual projectors.

In view of the increased acoustic enhancement taught by Rees, it would be obvious to one of ordinary skill in the art to modify Sen et al by producing of the non-linear acoustic effect by transmitting a synthetic spectrum waveform using multiple projectors. Claim 1 is so rejected.

(10) Response to Argument

Appellant first argues that the prior art does not teach “secondary wavelets”. This argument is not convincing since it is the examiner's opinion that the backscattered signals that are produced by the reflection of the primary acoustic waveform off an identifiable object reads upon the claimed “secondary wavelet” that is produced by the non-linear effect. There is no patentable distinction in the claim that differentiates the backscattered signals from the secondary wavelets, both of which are received and processed, in identifying an object. Appellant is impermissibly arguing limitations or definitions into the claim, which limitations or definitions are NOT BEING CLAIMED.

Appellant’s further argument that the examiner has failed to consider the “definitional rebuttal evidence” is also not convincing. The “definitional evidence” was considered but not found to be commensurate in scope with the arguments because the definitions of “backscattering” and “wavelets” provided in the April 26, 2007 response is not commensurate in scope with that which is argued, specifically, backscattering signals and secondary wavelets. It is not that the “definitional rebuttal evidence” was

not considered, but rather, it did not provide any specific limitations in the claims and was not commensurate in scope with that argued.

Appellant then argues that the contended combination would render the cited art inoperable for their respective purposes. This is also not convincing since the mere substitution of one non-linear acoustic source (Rees) for another (Sen et al) would not render inoperable the system of Sen et al. Further, such a substitution would not change the “principles of operation” of the Sen et al system.

Finally, in response to appellant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the increased acoustic enhancement, as suggested by Rees, is motivation.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

//Ian J. Lobo//

Primary Examiner,

Art Unit 3662

Conferees:

Ian J. Lobo

Thomas Tarcza /THT/

Meredith Petravick /mcp/

Claims Appendix

1. A method of identifying an object, the method including the steps of:
directing a primary acoustic waveform at the object to produce a
nonlinear acoustic effect by using multiple projectors driven by a
synthetic spectrum;
receiving a secondary wavelet produced by the nonlinear effect; and
processing the received secondary wavelet in identifying the object.